

Research and Special Programs Administration 400 Seventh Street, S.W. Washington, D.C. 20590

JAN 1 3 2005

DOT-E 11725 (EIGHTH REVISION)

EXPIRATION DATE: December 31, 2006

(FOR RENEWAL, SEE 49 § 107.109)

1. <u>GRANTEE</u>: Swales Aerospace, Inc. (Former Grantee: Swales and Associates Inc.) Beltsville, Maryland

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the transportation in commerce of certain non-DOT specification containers containing certain Division 2.1, 2.2 and 2.3 liquefied and compressed gases. This exemption provides no relief from any regulation other than as limitation specifically stated herein.
- b. The safety analyses performed in development of this exemption only considered the hazard and risks associated with transportation in commerce.
- 3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
- 4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.301(f) in that the non-DOT specification containers are not fitted with pressure relief devices; §§ 173.302a(a)(1), 173.304a(a)(2) and 175.3 in that a non-DOT specification packaging is not authorized except as specified herein.
- 5. <u>BASIS</u>: This exemption is based on the application of Swales Aerospace, Inc. dated December 22, 2004, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identi- fication Number	Packing Group
Ammonia, anhydrous*	2.2/2.3	UN1005	N/A
Ethane	2.1	UN1035	N/A
Methane, compressed or Natural gas, compressed (with high methane content)	2.1	UN1971	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Nitrogen Trifluoride	2.2	UN2451	N/A
Propane see also Petroleum gases, liquefied	2.1	UN1978	N/A
Propylene <i>see also</i> Petroleum gases, liquefied	2.1	UN1077	N/A

^{*}Division 2.3 for international transportation. Division 2.2 as an alternate when only domestic transportation is involved.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are three (3) non-DOT specification containers which are sealed in a polyethylene or nylon bag, packed in foam cushioning and overpacked in a DOT Specification UN 4C or UN 4D wood box or non-DOT specification wooden box meeting the material requirements of §§ 178.513(b)(1) and (2) or § 178.514 (b)(1). The pressure in the containers during transportation may not exceed 370 psig at 130°F. The burst pressure of the non-DOT specification container must be at least 4 times the vapor pressure of the lading at 130°F. Packaging must be in accordance with drawings and specifications provided in the application on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The non-DOT specification containers are without valves or pressure relief devices and are described as follows:

- (1) Heat pipes or variable conductance heat pipes. constructed of axially grooved tubing (aluminum alloy 6063 or 300 series stainless steel or combination thereof) with an end cap and fill tube welded to opposing ends, not to exceed 4 liters in volume.
- (2) Capillary pumped loops constructed of 6061-T6 aluminum or 300 series stainless steel or combination thereof, not to exceed 144 inches in length and 36 inches wide, and not to exceed 4 liters in volume.
- Reservoirs constructed of 6061-T6 aluminum or 300 series stainless steel, not to exceed 4 liters in volume. The maximum size of the reservoir is 6 inches in diameter and 24 inches in length.
- TESTING Welds must be radiographically inspected to MIL-STD-2219 or NAS1514 specification. Each non-DOT specification container must be pneumatically tested to a pressure 1.5 times the vapor pressure of the lading at 100°C, but not less than 1400 psig, without failure.

OPERATIONAL CONTROLS: c.

- (1) Non-DOT specification containers may not contain more than 2.5 pounds of anhydrous ammonia.
- Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the receptacles are not fitted with pressure relief devices and provide appropriate guidance in case receptacles are exposed to fire.
- (3) Stacking of boxes is prohibited during shipment.
- Non-DOT specification wooden boxes identified in paragraph 7.a. must be shipped by exclusive use motor vehicle.

8. SPECIAL PROVISIONS:

A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

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b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING

- (1) The outer wooden box must be plainly and durably marked on two opposite sides on a contrasting background, "DOT-E 11725" and "DO NOT STACK" as specified in § 172.301(c).
- Each non-DOT specification container must be marked with the design pressure and pneumatic test pressure.
- The transportation of Division 2.1 (flammable gases) and Division 2.3 (gases which are poisonous by inhalation) materials are not authorized aboard aircraft unless specifically authorized in the Hazardous Materials Table (§ 172.101).
- MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo 9. only aircraft.
- 10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo only aircraft and motor vehicle used to transport packages covered by this exemption. shipper shall furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.
- COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - Registration required by § 107.601 et seq., when 0 applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this exemption are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §\$ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this exemption must notify the Associate Administrator for Hazardous Materials Safety -- OHMEA, in writing, of any incident involving a package, shipment or operation conducted under terms of this exemption.

Issued in Washington, D.C.:

Robert A. McGuire

Associate Administrator for Hazardous Materials Safety

JAN 1 3 2005

DATE

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: CWF/am